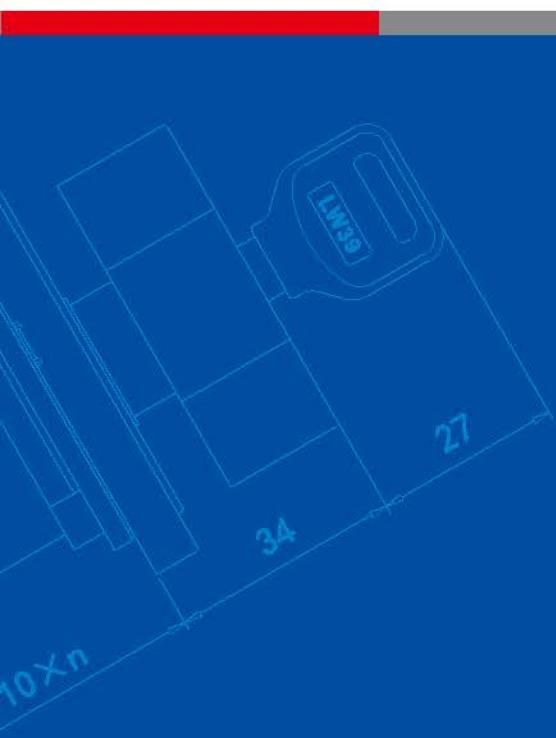


LW39-16N

Cam Switch

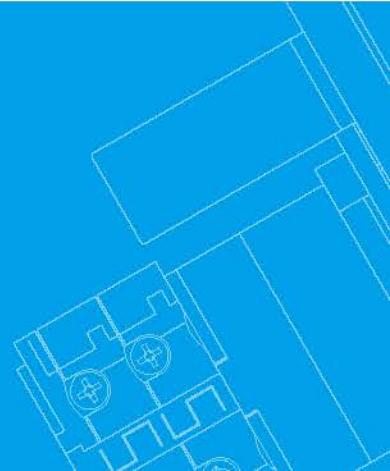


APT, established in 1993, has been specialized in the manufacturing of low voltage products such as pushbuttons and indicators and is one of the leading low voltage control device manufacturers in China. Through years of promotion and application, APT Series products have been widely serving dozens of industrial fields in China, including power, machinery, steel, metallurgy, petrochemical, transportation, water treatment, food, packaging, textile, harbor and construction etc. They have been successively chosen and used by the national key projects such as Qinshan Nuclear Power Plant, the Three Gorges Project, the Qinghai-Tibet Railway locomotives, Shenzhou V Spacecraft, Shanghai Pudong International Airport, National Stadium ("Bird's Nest")

In August, 2008, according to the asset purchase agreement between Shanghai APT Co., Ltd. (hereinafter referred to as "APT") and Siemens Electrical Apparatus Ltd. Suzhou (hereinafter referred to as "Siemens"), both parties have completed the business transaction. APT brand and related products will be under the operation of "Siemens" Group. As a new member of Siemens Group, APT will succeed and promote the business operation philosophy of the former "APT", i.e. customer orientation. With the quality management and R&D resources of Siemens, APT will focus on the manufacture of pushbuttons, indicators components and other important low voltage products such as the signal lighting, cam switch, relays, current transformers and limit switches etc. Furthermore, Siemens will develop its international business operation experience to strengthen the management and business development of APT and better serve Chinese and global market demands through its advanced technology.

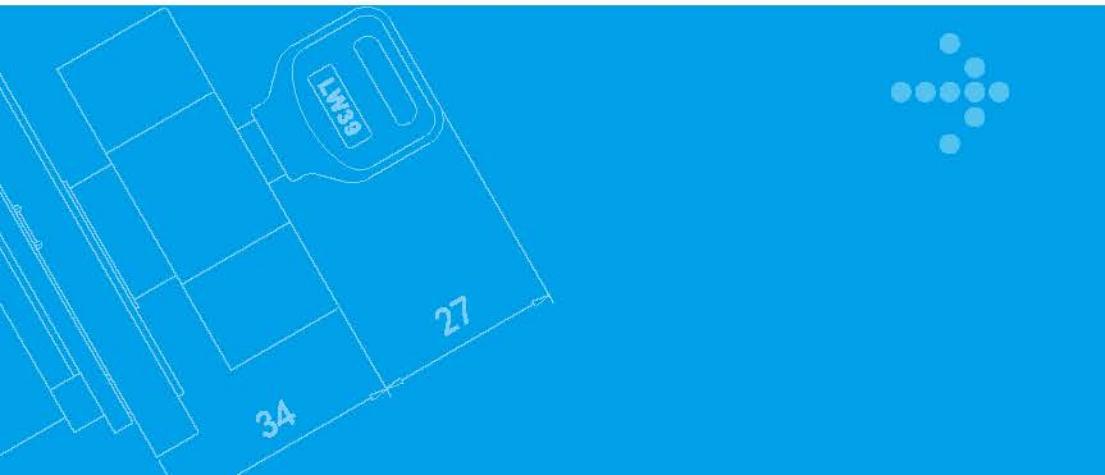
We will do better!

Cam Switch
LW39N



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LW39-16N Series Cam Switches

Introduction

LW39-16N series cam switches are a wide series of products that are dedicatedly researched and developed by us to keep and ensure its leadership in the industry. It is featured with various and beautiful types, rich specifications and series as well as powerful junction functions. The new series of products with the specially miniaturized design have the tiny, fresh and beautiful profile and reliable structure. The built-in wiring method is safer and more reliable; the contact system has adopted the rolling bearing to have the gentle action and touch feeling and also effectively improve its mechanical service life; it has multiple features and functions for option, which can meet the most demands on the applications in electrical control panels as well as mechanical and electrical control.

LW39-16N series cam switches are applicable to the circuits of AC50~60Hz, voltage of 690V and below as well as DC440V and below. They can be used for the changeover of electrical control, remote control of power distribution equipment, changeover of electrical measuring instruments, control of servo motor's micro-motors as well as the direct control of small-capacity cage-type motors etc.

Technical Data

Working Conditions: the altitude ≤ 2,000m, ambient temperature -25 °C ~+55 °C , relative air humidity ≤ 90%, installation class: III, pollution class III

Standards

GB14048.5 IEC60947-5-1

Model

LW 39-16 N □ - □ - □...□ / □-□-□-□...□ - □

- Customer Code (can be omitted)
- illuminate Code: light color code and voltage code (reference the voltage code)
- Escutcheon Plates Code (reference the Escutcheon Plates Code. Can customized upon request)
- Handle Code (reference the handle type code)
- Contactor poles (the poles number of contactor)
- Contactor Code (reference the description of contactor code)
- Operation code (reference the description of position code)
- Function Code (reference the description of function code)
- Switch Type
- Basic Specification (lth)
- Design Serial Number
- Cam Switch Model

Electrical Technical Data

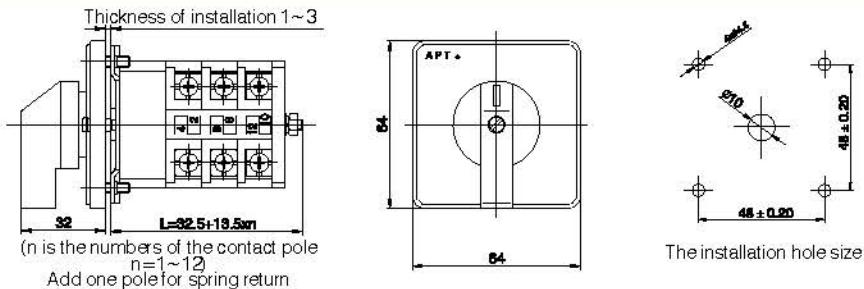
Model		LW39-16N
Rated Insulation Voltage Ui GB/T14048.1	V	690
Rated Thermal Current Ith GB/T14048.1	A	16
Rated Impulse Withstand Voltage 1min Uimp GB/T14048.1	V	2500
AC Rated operational Current Ie		
AC-21 switching of Resistive Loads GB/T14048.3	A	16
AC-22A switching of combined Resistive or inductive loads GB/T14048.3	A	16
AC-15 switching of control devices contactors valves ect Loads GB/T14048.5		
COSØ=0.4	220V	A 12
	380V	A 8
AC-3 squirrel-Cage Asynchronous Motor		
Direct-on-line starting, start-delta starting GB/T14048.3 Appendix A		
3-Phase & 3-Pole 380V	A	12
AC-4 Cage Asynchronous Motor		
Startup, Braking, Inversion, Inchng		
	GB/T14048.3 Appendix A	
3-Phase & 3-Pole 380V	A	10
DC Rated operational Current Ie		
DC-13 switching of control devices contactors valves ect Loads		
T-300ms GB14048.5		
Number of Series Contacts	1 2 3 4	
	24 48 70 95	A
	48 60 95 110	A
Voltage V	100 220 300	A 2.5
	220 440	A 1.25
	440	A
AC electrical endurance	X10 ⁴	20
DC electrical endurance	X10 ⁴	10
Mechanical endurance	X10 ⁴	30

LW39-16N Series Cam Switches

Normal LW39-16N



Position: 30°, 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles. Handles type: all

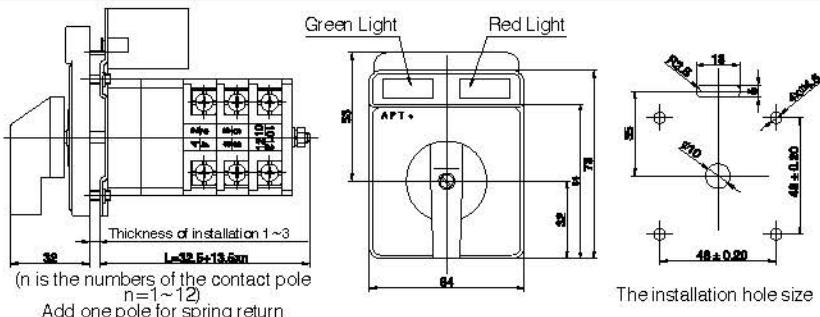


Order Model: LW39-16N- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

Panel with illuminate LW39-16ND



Position: 30°, 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles. Handles: all

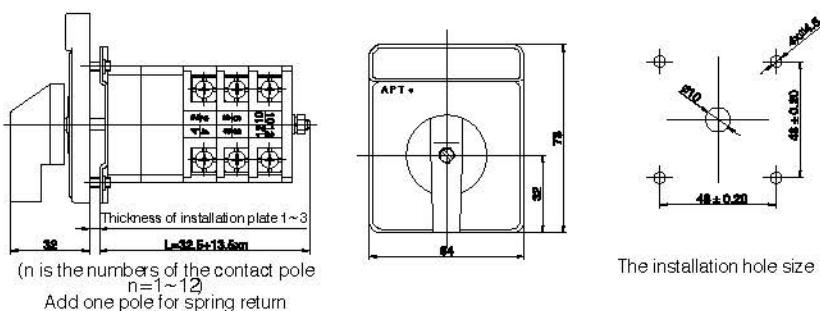


Order Model: LW39-16ND- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

Normal with panel LW39-16NP



Maintain: 30°, 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: all

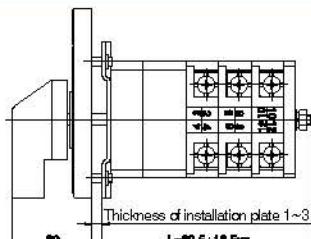


Order Model: LW39-16NP- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

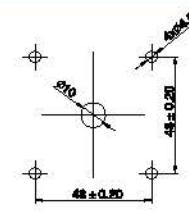
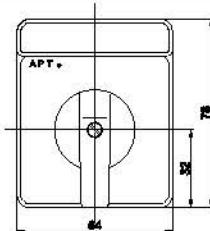
Plat Surface panel W39-16NP2



Maintain: 30°, 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: all



(n is the numbers of the contact pole
n=1~12)
Add one pole for spring return



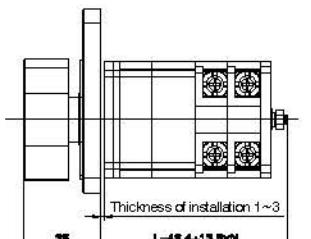
The installation hole size

Order Model: LW39-16NP2- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

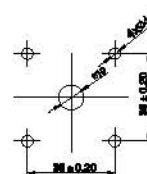
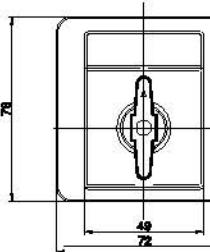
Large Panel with four hole installation LW39-16NP3



Maintain: 30°, 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: unique



(n is the numbers of the contact pole
n=1~12)
Add one pole for spring return



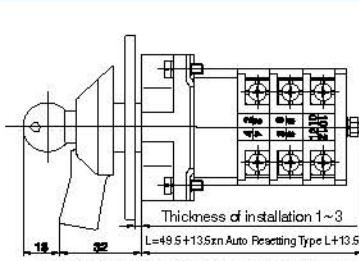
The installation hole size

Order Model: LW39-16NP3- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

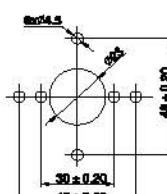
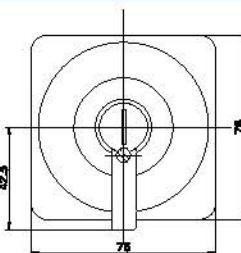
Handle with Key-lock LW39-16NYS



Maintain: 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: unique



(n is the numbers of the contact pole
n=1~12)
Add one pole for spring return



The installation hole size

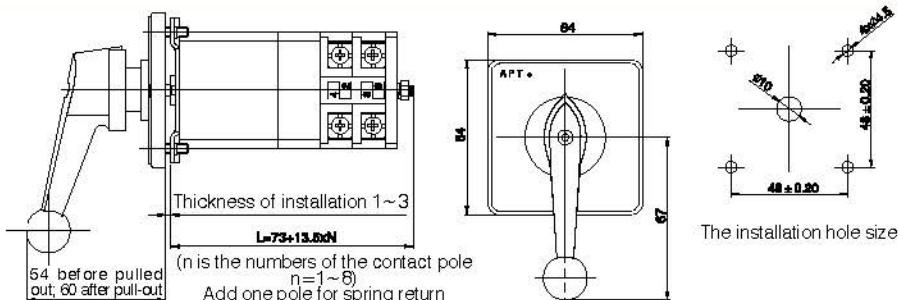
Order Model: LW39-16NYS- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

LW39-16N Series Cam Switches

Handle Push-in (Pull-out) operation LW39-16NTF (LF)



Maintain: 45°, 90°; Maximum Number poles: maintained 8 poles; spring return 7 poles,
Handles: E, F

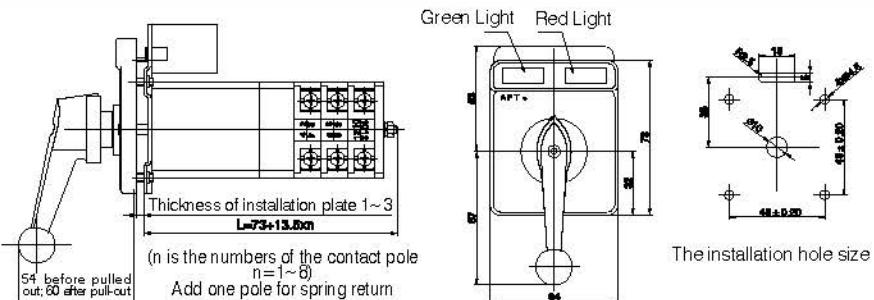


Ordered Model: LW39-16 NTF(LF)- □ - □ ... □ / □ - □ - □ ... □ - □ Reference to the model meaning for details

Handle Push-in (Pull-out) operation with illuminate LW39-16 NTFD (LFD)



Maintain: 45°, 90°; Maximum Number poles: maintained 8 poles; spring return 7 poles,
Handles: E, F

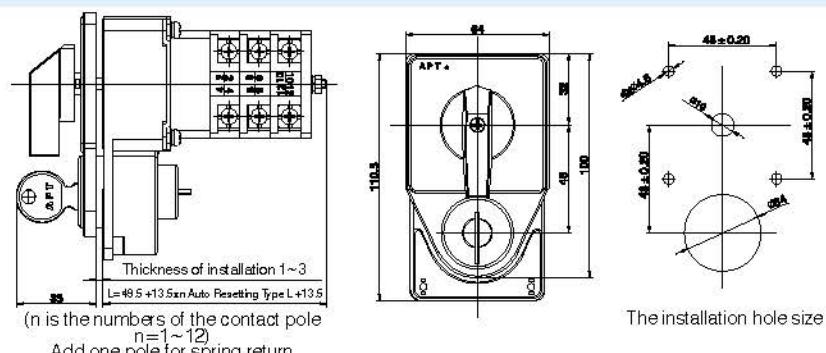


Order Model: LW39-16 NTFD (LFD)- □ - □ ... □ / □ - □ - □ ... □ - □ Reference to the model meaning for details

Panel with Key-lock LW39-16NYM



Maintain: 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles.,
Handles: A, B, C, D

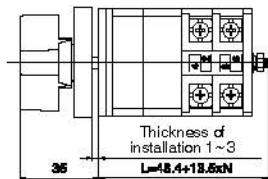


Order Model: LW39-16 NYM- □ - □ ... □ / □ - □ - □ ... □ - □ Reference to the model meaning for details

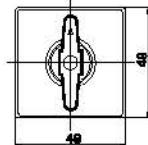
Installation with Three-hole LW39-16NS



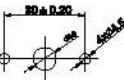
Maintain: 30°, 45°, 90°; Maximum Number poles: maintained 11 poles; spring return 10 poles., Handles: unique



(n is the numbers of the contact pole
n=1~11)
Add one pole for spring return



The installation hole size

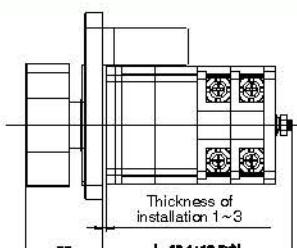


Order Model: LW39-16NS- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

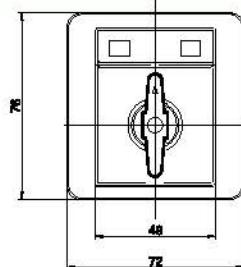
Installation with Three-hole with illuminate LW39-16NSD



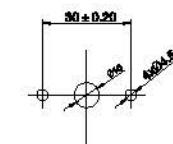
Maintain: 45°, 90°; Maximum Number poles: maintained 11 poles; spring return 10 poles., Handles: unique



(n is the numbers of the contact pole
n=1~11)
Add one pole for spring return



The installation hole size

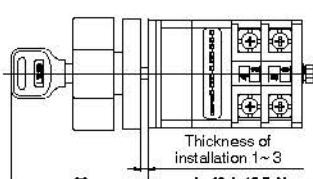


Order Model: LW39-16NSD- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

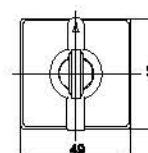
Installation with Three-hole with Key-lock LW39-16NSY



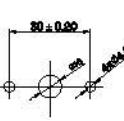
Maintain: 45°, 90°; Maximum Number poles: maintained 11 poles; spring return 10 poles., Handles: unique



(n is the numbers of the contact pole
n=1~11)
Add one pole for spring return



The installation hole size



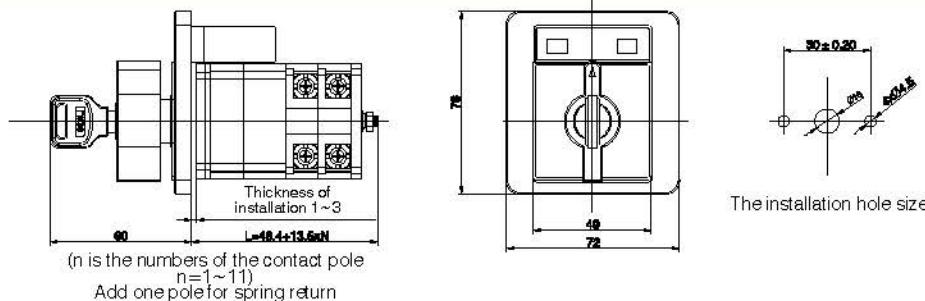
Order Model: LW39-16NSY- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

LW39-16N Series Cam Switches

Installation with Three-hole with Key-lock with illuminate LW39-16NSDY



Maintain: 45°, 90°; Maximum Number of Pitches: positioned with 11 pitches and reset with 10 pitches, Handles: unique

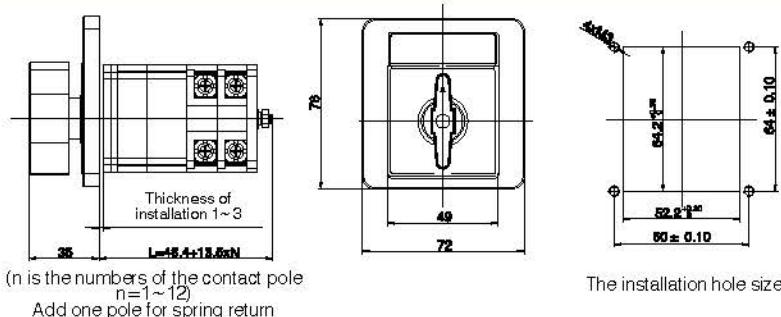


Order Model: LW39-16NDY- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

Large Panel with rectangle installation LW39-16NX



Maintain: 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: unique

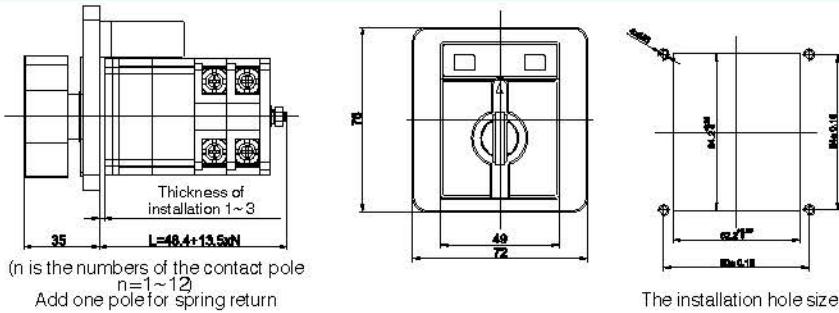


Order Model: LW39-16NX- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

Large Panel with illumination with rectangle installation LW39-16NXD



Maintain: 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: unique

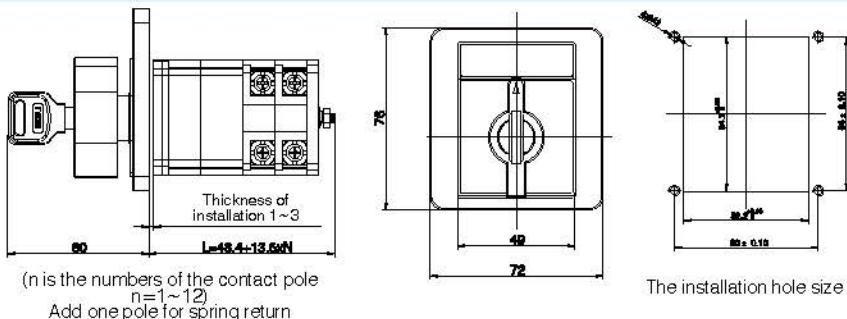


Order Model: LW39-16NXD- □ - □ ... □ /□-□-□-□ ... □ - □ Reference to the model meaning for details

Large Panel with Key-lock with rectangle installation LW39-16NXY



Maintain: 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: unique

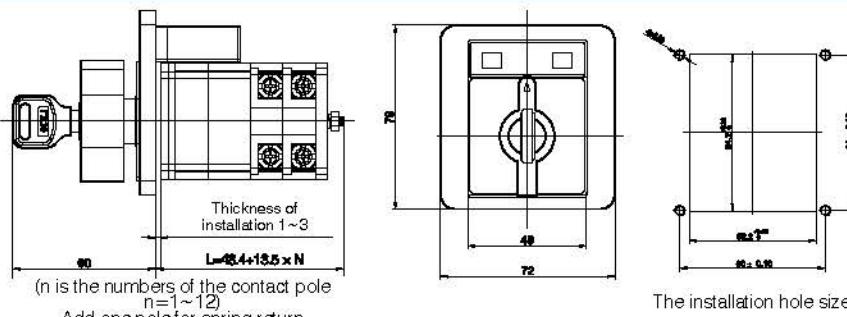


Order Model: LW39-16NXY- - ... / - - - ... - Reference to the model meaning for details

Large Panel with Key-lock with illumination with rectangle installation LW39-16NXDY



Maintain: 45°, 90°; Maximum Number poles: maintained 12 poles; spring return 11 poles., Handles: unique

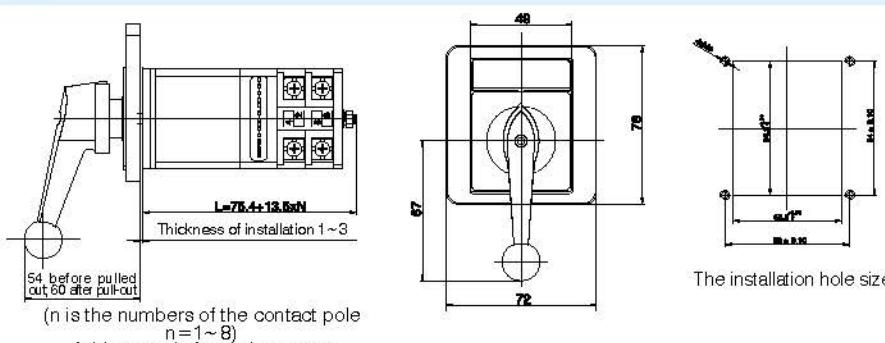


Order Model: LW39-16NXDY- - ... / - - - ... - Reference to the model meaning for details

Large Panel with handle Push-in (Pull-out) operation with rectangle installation LW39-16NXTF (LF)



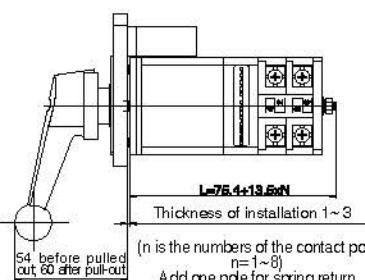
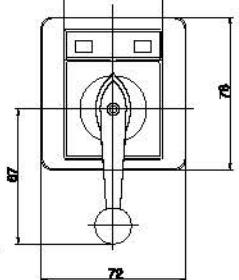
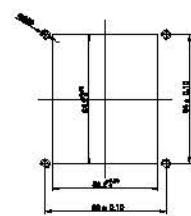
Maintain: 45°, 90°; Maximum Number poles: maintained 8 poles; spring return 7 poles. Handles: E, F



Order Model: LW39-16NXTF (LF)- - ... / - - - ... - Reference to the model meaning for details

LW39-16N Series Cam Switches

Large Panel with handle Push-in (Pull-out) operation with illumination with rectangle LW39-16NXTFD (LFD)

	<p>Maintain: 45°, 90°; Maximum Number poles: maintained 8 poles; spring return 7 poles. Handles: E, F</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p> L=76.4+13.6xN Thickness of installation 1~3 54 before pulled out 60 after pull-out (n is the numbers of the contact pole n=1~8) Add one pole for spring return </p> </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  <p>The installation hole size</p> </div> </div>
---	---

Order Model: LW39-16NXTFD (LFD)- □ - □ ... □ / □ - □ - □ - □ ... □ - □ Reference to the model meaning for details

Handles (defaulted as Ak handle without remark)

Code	Ak	Ar	Bk	Br	Ck	Cr	Dk	Dr
Handle								
Size								
Code	Ek	Er	Fk	Fr	Gt			
Handle								
Size								

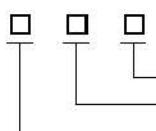
Code of Position

The code of position indicates the gear features of the cam switches, including maintained type and spring-return type

- (1) maintained type: it does not have spring-return function. LW39 series cam switches have 30°, 45° and 90° position.
Please attention the position of each models and fill the position codes when you ordered.

Position	Application Model	Position circle	Example
30°	LW39-10, LW39-16, LW39-25, LW39-63		"3KC" indicates 30° position, starting from K and ending at C with clockwise. It has 5 positions K, O, A, B, C.
45°	LW39-10, LW39-16, LW39-25, LW39-63		"4OB" indicates 45° position, starting from O and ending at B with clockwise. It has 3 positions O, A, B.
90°	LW39-10, LW39-16, LW39-25, LW39-63		"9GC" indicates 90° position, starting from G and ending at C with clockwise. It has 3 positions G, A, C.

Position Code Description:



Ending position

Starting position

"3" indicates 30°, "4" indicates 45° and "9" indicates 90°

Note: if the switch is operated without limited in a circle, the ending and starting position will be the same letter, for example: "3JJ" indicates 30° position, starting from -90° with 12 positions without limited.

LW39-16N Series Cam Switches

(2) Spring-return Type: one or more position for spring-return type have spring-return function. LW39 series cam switches have various spring-return function types for option.

The following table show the commonly used spring-return functions codes.

Please attention the application models.

Spring-return Position Code	Operation Position (Angle)
A1	0° → 30°
A2	0° → 45°
B1	-30° → 0° → 30°
B2	-45° → 0° → 45°
B3	<u>-60° → -30° → 0° ← 30° ← 60°</u>
B4	-90° -45° 0° 45° ← 90°
B5	-90° -45° 0° ← 45°
BA	<u>-90° → -45° → 0° ← 45° ← 90°</u>
BC	-45° → 0° 0° ← 45°
BD	-30° → 0° 0° ← 30°
Z1	-135° → -90° 0° ← 45°
ZA	-90° → -45° 0° 45° ← 90°
ZB	-90° → -45° 0° 45°
ZC	-45° 0° 45° ← 90°
ZD	-90° 0° ← 45°
ZE	0° 45° ← 90°
ZF	-45° 0° ← 45°
ZG	-45° → 0° 45°
ZK	-45° → 0° 45° 90°

Remark: if you have more requirement ,please contact our technical department.

Contactor Codes

The contactor codes can be showed in the model with the following two ways:

1. Inquiry the contactor codes in the 'contactor codes handbook';
2. We can provide you the contactor code according your contactor diagram;

For example:

Requirements: 3 position; the 1st position has 4 contactors closed, the 2nd position has 2 contactors closed and the 3rd position has 4 contactors closed. The contactor codes can be got in the 'contactor codes handbook' as: 424/3.

Contactor Code	424/3		
Position	1	2	3
1-2	X		X
3-4	X		X
5-6	X		X
7-8	X		X
9-10		X	
11-12	X		

If contactor codes can't be found in 'contactor codes handbook', you can provide the contactor diagrams to us (fill with "x" letter as the contactor closed on the blank contactor diagram on the P22), and add the "x" letter after the contactor code as the customer requirement.

Contactor code: 424X

contactor Code	424X/3		
Position	1	2	3
1-2	X		X
3-4	X		
5-6		X	X
7-8	X		X
9-10			X
11-12	X	X	

Note: X in contactor diagram means that the contactor closed.

Illuminate color codes and voltage codes:

"g" means green and "r" means red.

"23" means AC/DC24V, "26" means AC/DC110V, "28" means DC220V and "31" means AC220V.

Remark: write the illuminate color codes sequence from the left to the right as the panel facing the front.

For example: "-gr23", show that the green indicator is on the left and red is on the right. "-rg23" show that the red light is on the left and the green is on the right.

Terminals of illuminate:

The wiring terminals are defaulted as common cathode: X1(+), X0(-), X2(+). Please tell us ,if there have some special requirements

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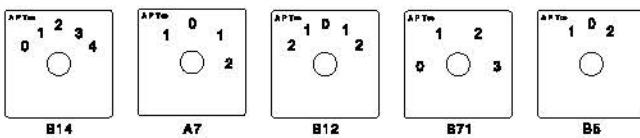
Escutcheon Plates Code

The Escutcheon Plates Code of panel indicate the specific requirements for the prints on the panels of the cam switches. The user can select escutcheon plate code according to "Ordinary escutcheon Codes of Panel", or provide the requirements for customization. If there are no show in the Order Models, we will provide the panels according to the defaulted escutcheon plates code rule.

1. Defaulted escutcheon plates code Rules:

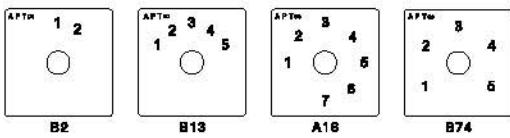
(1) If one position have no contactor closed, this position plate shall be "0" and then the position on both sides shall be show in sequence of Arabic figure as "1", "2", "3"..... For 3 position cam switch, there is not the plate as of 1-0-1, instead of 1-0-2.

For example:



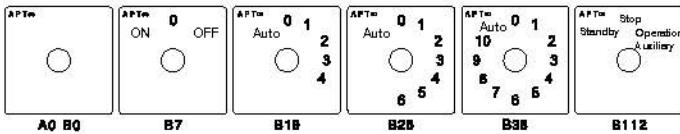
(2) If the position haven't "0", each position will be showed in sequence of Arabic figure as "1", "2", "3".....(clockwise).

For example:

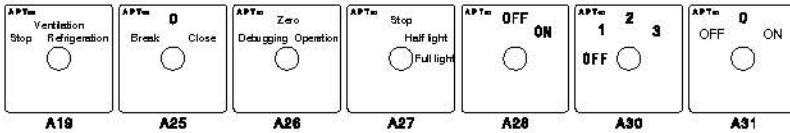


2. Ordinary escutcheon plates:

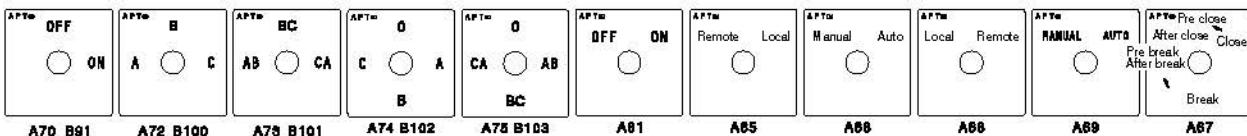
Position - 30°



Position - 45°



Position - 90°and Combined



3. Special Plate, add the letter "P" after the pole code

Universal contactor diagram

1.a) LW21-16NZ1-7

LW39-16NXD-4FA-5353J/6-gr23

Escutcheon Plates	Disabled	3-phase	General	Single-phase
Position	-135°	-90°	-45°	0°
Handle Direction	↙	←	↖	↑
Operation	Maintain	Maintain	Maintain	Maintain
X1-X0		LED Yellow Light 24V		
X2-X0		LED Yellow Light 24V		
1-2			✗	
3-4	✗			
5-6			✗	✗
7-8	✗	✗		
9-10			✗	✗
11-12	✗	✗		
13-14			✗	
15-16	✗			
17-18			✗	
19-20			✗	
21-22		✗		
23-24	✗			

2.a) LW21-16NZ2-3

LW39-16NXD-9GA-22B/2-gr23

Escutcheon Plates	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
X1-X0		LED Yellow Light 24V
X2-X0		LED Yellow Light 24V
1-2		✗
3-4	✗	
5-6		✗
7-8	✗	

3.a) LW21-16NZ2-4

LW39-16NXD-9GA-33A/3-gr23

Escutcheon Plates	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
X1-X0		LED Yellow Light 24V
X2-X0		LED Yellow Light 24V
1-2		✗
3-4	✗	
5-6		✗
7-8	✗	
9-10		✗
11-12	✗	

1.b) LW21-16NZ1-7A

LW39-16NS-4FA-5353J/6

Escutcheon Plates	Disabled	3-phase	General	Single-phase
Position	-135°	-90°	-45°	0°
Handle Direction	↙	←	↖	↑
Operation	Maintain	Maintain	Maintain	Maintain
1-2				✗
3-4		✗		
5-6				✗
7-8		✗	✗	
9-10				✗
11-12		✗	✗	
13-14				✗
15-16		✗		
17-18				✗
19-20				✗
21-22			✗	
23-24	✗			

2.b) LW21-16NZ2-3A

LW39-16NS-9GA-22B/2

Escutcheon Plates	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2		✗
3-4	✗	
5-6		✗
7-8	✗	

3.b) LW21-16NZ2-4A

LW39-16NS-9GA-33A/3

Escutcheon Plates	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2		✗
3-4	✗	
5-6		✗
7-8	✗	
9-10		✗
11-12	✗	

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4.a) LW21-16NZ2-6

LW39-16NXD-9GA-44A/4-gr23

Escutcheon Plates	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
X1-X0		LED Red Light DC220V
X2-X0		LED Green Light DC220V
1-2		x
3-4	x	
5-6		x
7-8	x	
9-10		x
11-12	x	
13-14		x
15-16	x	

4.b) LW21-16NZ2-6A

LW39-16NS-9GA-44A/4

Escutcheon Plates	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2		x
3-4		x
5-6		x
7-8		x
9-10		x
11-12		x
13-14		x
15-16		x

5.a) LW21-16NZ3-10

LW39-16NXD-4OB-909AJ/9-gr23

Escutcheon Plates	Reference Line	Disabled	Bypass
Position	-45°	0°	45°
Handle Direction	↖	↑	↗
Operation	Maintain	Maintain	Maintain
X1-X0		LED Yellow Light 24V	
X2-X0		LED Yellow Light 24V	
1-2			x
3-4	x		
5-6			x
7-8	x		
9-10			x
11-12	x		
13-14			x
15-16	x		
17-18			x
19-20	x		
21-22			x
23-24	x		
25-26			x
27-28	x		
29-30			x
31-32	x		
33-34			x
35-36	x		

5.b) LW21-16NZ3-10A

LW39-16NS-4OB-909AJ/9

Escutcheon Plates	Reference Line	Disabled	Bypass
Position	-45°	0°	45°
Handle Direction	↖	↑	↗
Operation	Maintain	Maintain	Maintain
1-2			x
3-4		x	
5-6			x
7-8		x	
9-10			x
11-12		x	
13-14			x
15-16		x	
17-18			x
19-20		x	
21-22			x
23-24		x	
25-26			x
27-28		x	
29-30			x
31-32		x	
33-34			x
35-36		x	

6.a) LW21-16NZ3-3
LW39-16NXD-4OB-303AJ/3-gr23

Escutcheon Plates	Reference Line	Disabled	Bypass
Position	-45°	0°	45°
Handle Direction	↖	↑	↗
Operation	Maintain	Maintain	Maintain
X1-X0			
X2-X0			
1-2			x
3-4	x		
5-6			x
7-8	x		
9-10			x
11-12	x		

LED Red Light 24V
LED Green Light 24V

6.b) LW21-16NZ3-3A
LW39-16NS-4OB-303AJ/3

Emblemed Mark	Reference Line	Disabled	Bypass
Handle Angle	-45°	0°	45°
Handle Direction	↖	↑	↗
Operation Method	Maintain	Maintain	Maintain
1-2			x
3-4		x	
5-6		x	
7-8		x	
9-10			x
11-12		x	

7.a) LW21-16NZ31-1
LW39-16NXD-9GA-02/1-gr23

Escutcheon Plates	Remote	Local
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
X1-X0		
X2-X0		
1-2		x
3-4		x

LED Red Light 24V
LED Green Light 24V

7.b) LW21-16NZ31-1A
LW39-16NS-9GA-02/1

Escutcheon Plates	Remote	Local
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2		x
3-4		x

8) LW21-16NZ31-1ASC
LW39-16NXY-9GA-02/1

Escutcheon Plates	Remote	Local
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2		x
3-4		x

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9.a) LW21-16NZ4-3

LW39-16NXD-Z1-2002/2-gr28

Escutcheon Plates	Break	Pre-break After Break	Pre-close After Close	Close
Position	-135°	-90°	0°	45°
Handle Direction	↙	←	↑	↗
Operation	Spring Return	Maintain	Maintain	Spring Return
X1-X0	LED Red Light DC220V			
X2-X0	LED Green Light DC220V			
1-2				x
3-4	x			
5-6				x
7-8	x			

9.b) LW21-16NZ4-3A

LW39-16NS-Z1-2002/2

Escutcheon Plates	Break	Pre-break After Break	Pre-close After Close	Close
Position	-135°	-90°	0°	45°
Handle Direction	↙	←	↑	↗
Operation	Spring Return	Maintain	Maintain	Spring Return
1-2				x
3-4	x			
5-6				x
7-8	x			

10.a) LW21-16NZ4-4

LW39-16NXD-Z1-3003/3-gr28

Emblazoned Mark	Break	Pre-break After Break	Pre-close After Close	Close
Handle Angle	-135°	-90°	0°	45°
Handle Direction	↙	←	↑	↗
Operation Method	Spring Return	Maintain	Maintain	Spring Return
X1-X0	LED Red Light DC220V			
X2-X0	LED Green Light DC220V			
1-2				x
3-4	x			
5-6				x
7-8	x			
9-10				x
11-12	x			

10.b) LW21-16NZ4-4A

LW39-16NS-Z1-3003/3

Escutcheon Plates	Break	Pre-break After Break	Pre-close After Close	Close
Position	-135°	-90°	0°	45°
Handle Direction	↙	←	↑	↗
Operation	Spring Return	Maintain	Maintain	Spring Return
1-2				x
3-4	x			
5-6				x
7-8	x			
9-10				x
11-12	x			

11.a) LW21-16NZ51-4
LW39-16NXD-9GA-44/4-gr23

	Line	Bypass
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
X1-X0	LED Red Light 24V	
X2-X0	LED Green Light 24V	
1-2	x	
3-4		x
5-6	x	
7-8		x
9-10	x	
11-12		x
13-14	x	
15-16		x

11.b) LW21-16NZ51-4A
LW39-16NS-9GA-44/4

	Line	Bypass
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2	x	
3-4		x
5-6	x	
7-8		x
9-10	x	
11-12		x
13-14	x	
15-16		x

12.a) LW21-16NZ7-2
LW39-16NXD-9GC-011/1-gr23

	Disabled	Local	Remote
Position	-90°	0°	90°
Handle Direction	←	↑	→
Operation	Maintain	Maintain	Maintain
X1-X0	LED Yellow Light 24V		
X2-X0	LED Yellow Light 24V		
1-2		x	
3-4			x

12.b) LW21-16NZ7-2A
LW39-16NS-9GC-011/1

	Disabled	Local	Remote
Position	-90°	0°	90°
Handle Direction	←	↑	→
Operation	Maintain	Maintain	Maintain
1-2		x	
3-4			x

13.a) LW21-16NZ8-5
LW39-16NXD-4OB-323/4-gr23

	Exit IA	IA Full Input	Exit IA
Position	45°	0°	45°
Handle Direction	↖	↑	↗
Operation	Maintain	Maintain	Maintain
X1-X0			
X2-X0			
1-2			x
3-4	x		
5-6			x
7-8	x		
9-10		x	
11-12		x	
13-14			x
15-16	x		

13.b) LW21-16NZ8-5A
LW39-16NS-4OB-323/4

	Reference Line	Disabled	Bypass
Position	-45°	0°	45°
Handle Direction	↖	↑	↗
Operation	Maintain	Maintain	Maintain
1-2		x	
3-4		x	
5-6			x
7-8		x	
9-10			x
11-12		x	
13-14			x
15-16	x		

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14) LW21-16NZTS-6

LW39-16NXTFD-ZA-74047/5-gr28

	Break Position	Local Handle Direction	Remote Normal Operation	Local Push Operation	Close Spring Return
X1-X0	-90°	45°	0°	45°	90°
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18	x	x		x	x
19-20	x	x		x	x

15) LW21-16NZTS-6S

LW39-16NXDY-ZA-74047/5-gr28

	Emblmed Mark Break Position	Local Handle Angle Handle Direction	Remote Normal Operation No-push Operation	Local Push Operation Spring Return	Close Spring Return
X1-X0	-90°	45°	0°	45°	90°
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18	x	x		x	x
19-20	x	x		x	x

16.1) LW21-16NZTS-6A

LW39-16NXTFD-ZA-52225/5-gr28

	Break Position	Local Handle Direction	Remote Normal Operation	Local Push Operation	Close Spring Return
X1-X0	-90°	45°	0°	45°	90°
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18			x		
19-20			x		

16.2) LW21-16NZTS-6B

LW39-16NXTFD-ZA-52225A/5-gr28

	Emblmed Mark Break Position	Local Handle Angle Handle Direction	Remote Normal Operation No-push Operation	Local Push Operation Spring Return	Close Spring Return
X1-X0	-90°	45°	0°	45°	90°
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18	x	x		x	x
19-20	x	x		x	x

17.1) LW21-16NZTS-6AS
LW39-16NXY-ZA-52225/5-gr28

	Break	Local	Remote	Local	Close
Position	-90°	-45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain		
Push Operation	Spring Return	→	Maintain	←	Spring Return
X1-X0					
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18			x		
19-20			x		

17.2) LW21-16NZTS-6BS
LW39-16NXY-ZA-52225A/5-gr28

	Break	Local	Remote	Local	Close
Position	-90°	-45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain	Maintain	
Push Operation	Spring Return	→	Maintain	Maintain	← Spring Return
X1-X0					
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18		x	x	x	x
19-20				x	

18) LW21-16NZTS6B-5ASC
LW39-16NXY-ZA-52225A/5

	Break	Local	Remote	Local	Close
Position	-90°	-45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain		
Push Operation	Spring Return	→	Maintain	←	Spring Return
X1-X0					
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16			x		
17-18	x	x		x	x
19-20			x		

19.1) LW21-16NZTS-7
LW39-16NXTFD-ZA-52425/6-gr28

	Break	Local	Remote	Local	Close
Position	-90°	-45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain	Maintain	
Push Operation	Spring Return	→	Maintain	Maintain	← Spring Return
X1-X0					
X2-X0					
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18				x	
19-20				x	
21-22				x	
23-24				x	

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20.1) LW21-16NZTS-7B

LW39-16NXTFD-ZA-63336/6-gr28

	Break	Local	Remote	Local	Close
Position	-90°	45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain		
Push Operation	Spring Return	→		←	Spring Return
X1-X0			LED Red Light DC220V		
X2-X0			LED Green Light DC220V		
1-2					x
3-4	x				x
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16			x		
17-18	x	x		x	x
19-20			x		
21-22	x	x		x	x
23-24			x		

20.2) LW21-16NZTS-7D

LW39-16NXTFD-ZA-63336A/6-gr28

	Break	Local	Remote	Local	Close
Emblemed Mark	-90°	45°	0°	45°	90°
Handle Angle	←	↖	↑	↗	→
Handle Direction	←	↖	↑	↗	→
No-push Operation	Maintain	Maintain	Maintain	Maintain	
Push Operation	Spring Return	→		←	Spring Return
X1-X0			LED Red Light DC220V		
X2-X0			LED Green Light DC220V		
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14		x		x	x
15-16			x		x
17-18	x	x		x	x
19-20			x		x
21-22			x		x
23-24	x	x		x	x

21) LW21-16NZTS7-6A

LW39-16NXTF-ZA52425/6

	Break	Local	Remote	Local	Close
Position	-90°	45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain		
Push Operation	Spring Return	→		←	Spring Return
X1-X0			LED Red Light DC220V	x	
X2-X0		x	LED Green Light DC220V		
1-2					
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18			x		
19-20			x		
21-22			x		
23-24			x		

22) LW21-16NZTS-7S

LW39-16NXDY-16ZA-52425/6-gr28

	Break	Local	Remote	Local	Close
Position	-90°	45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain	Maintain	
Push Operation	Spring Return	→		←	Spring Return
X1-X0			LED Red Light DC220V		
X2-X0			LED Green Light DC220V		
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16	x	x		x	x
17-18			x		x
19-20			x		x
21-22			x		x
23-24			x		x

23.2) LW21-16NZTS-7BS
LW39-16NXDY-ZA-63336/6-gr28

	Break	Local	Remote	Local	Close
Position	-90°	45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain		
Push Operation	Spring Return	→		←	Spring Return
X1-X0		LED Red Light DC220V			
X2-X0		LED Green Light DC220V			
1-2					x
3-4	x				
5-6					x
7-8	x				
9-10					x
11-12	x				
13-14	x	x		x	x
15-16			x		
17-18	x	x		x	x
19-20			x		
21-22	x	x		x	x
23-24			x		

24) LW21-16NZTS-4A
LW39-16NXTFD-ZA-20202/3-gr28

	Break	Local	Remote	Local	Close
Position	-90°	45°	0°	45°	90°
Handle Direction	←	↖	↑	↗	→
NormalOperation	Maintain	Maintain	Maintain	Maintain	
Push Operation	Spring Return	→		←	Spring Return
X1-X0		LED Red Light DC220V			
X2-X0		LED Green Light DC220V			
1-2					x
3-4			x		
5-6					x
7-8			x		
9-10				x	
11-12			x		

25) LW21-16Z/4.3202.3NS
LW39-16NXDY-B2-202A/2-gr28

	Jump	0	Close
Position	-45°	0°	45°
Handle Direction	↖	↑	↗
Operation	Spring Return	Maintain	Maintain
X1-X0		LED Red Light DC220V	
X2-X0		LED Green Light DC220V	
1-2			x
3-4	x		
5-6			x
7-8	x		

26) LW21-16/9.2204.2A
LW39-16NS-9GA-22A/2

	Disabled	Input
Position	-90°	0°
Handle Direction	←	↑
Operation	Maintain	Maintain
1-2		x
3-4	x	
5-6		x
7-8	x	

27) LW21-16/4.5391.2
LW39-16NS-4AB-04/2

	0	1
Position	0°	45°
Handle Direction	↑	↗
Operation	Maintain	Maintain
1-2		x
3-4		x
5-6		x
7-8		x

LW39-16N Series Cam Switches

Blank Junction Schedule

Customer Name: _____ Contact Person: _____

Contact : (Tel No.) _____ (Fax No.) _____

Description of Basic Technical data of Cam Switch:

Ith: _____ A _____

Model: _____ Handle: _____ (Fill the code)

Escutcheon Plates																
position																
Terminal Number and contactor closed/ opened Status	1 o—o o—o 2															
	3 o—o o—o 4															
	5 o—o o—o 6															
	7 o—o o—o 8															
	9 o—o o—o 10															
	11 o—o o—o 12															
	13 o—o o—o 14															
	15 o—o o—o 16															
	17 o—o o—o 18															
	19 o—o o—o 20															
	21 o—o o—o 22															
	23 o—o o—o 24															
	25 o—o o—o 26															
	27 o—o o—o 28															
	29 o—o o—o 30															
	31 o—o o—o 32															
	33 o—o o—o 34															
	35 o—o o—o 36															
	37 o—o o—o 38															
	39 o—o o—o 40															
	41 o—o o—o 42															
	43 o—o o—o 44															
	45 o—o o—o 46															
	47 o—o o—o 48															

Model of Cam Switch (confirmed by the manufacturer): _____



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